ELSEVIER

RESPIRATION PHYSIOLOGY

Contents of Volume 100

No. 1, April 1995

S.M. Tenney (USA): One hundred volumes and going strong 1

L. Zocchi, E. Agostoni and D. Cremaschi (Italy): β-Agonist activation of an amiloride-insensitive transport mechanism in rabbit pleura 7

R.L. Lubman, D.C. Chao and a.E.D. Crandall (USA): Basolateral localization of Na^+-HCO_3^- cotransporter activity in alveolar epithelial cells 15

A. Kawai, Y. Okada, K. Mückenhoff and P. Scheid (Germany): Theophylline and hypoxic ventilatory response in the rat isolated brainstem–spinal cord 25

T.J. Moss, A.E. Jakubowska, G.J. McCrabb, K. Billings and R. Harding (Australia): Ventilatory responses to progressive hypoxia and hypercapnia in developing sheep 33

D.J. McKenzie, E.W. Taylor, P. Bronzi and C.L. Bolis (Italy): Aspects of cardioventilatory control in the adriatic sturgeon (*Acipenser naccarii*) 45

K. Holk and G. Lykkeboe (Denmark): Catecholamine-induced changes in oxygen affinity of carp and trout blood 55

E.S. Nozik , Y.-C.T. Huang and C.A. Piantadosi (USA): L-Arginine enhances injury in the isolated rabbit lung during hyperoxia 63

Y. Zhao, C.S. Packer and R.A. Rhoades (USA): Chronic hypoxia impairs pulmonary venous smooth muscle contraction 75

P.B. Frappell and R.V. Baudinette (Australia): Scaling of respiratory variables and the breathing pattern in adult marsupials 83

K. Fujimoto , K. Kubo , S. Shinozaki , K. Okada , Y. Matsuzawa , T. Kobayashi and K. Sugane (Japan): Neutrophil elastase inhibitor reduces asthmatic responses in allergic sheep 91

No. 2, May 1995

E. Metzen, M. Wolff, J. Fandrey and W. Jelkmann (Germany): Pericellular P_{O_2} and O_2 consumption in monolayer cell cultures 101

C. Campbell, M.B. Weinger and M. Quinn (USA): Alterations in diaphragm EMG activity during opiate-induced respiratory depression 107

M.-L. Fung and W.M. St. John (USA): Expiratory neural activities in gasping induced by pharyngeal stimulation and hypoxia 119

R. Stephenson (Canada): Respiratory and plumage gas volumes in unrestrained diving ducks (*Aythya affinis*) 129

V. Alfaro, V.I. Peinado and L. Palacios (Spain): Factors influencing acid–base status during acute severe hypothermia in unanesthetized rats 139

I. Kuwahira, Y. Moue, Y. Ohta and N.C. Gonzalez (USA): Pulmonary blood flow distribution during acute hypoxia in conscious resting rats 151

N. Weissmann, F. Grimminger, D. Walmrath and W. Seeger (Germany): Hypoxic vasoconstriction in buffer-perfused rabbit lungs 159

A.A. Mayer, J. Metcalfe and M.K. Stock (USA): Relocation during incubation of endothelial nuclei in the chick chorioallantois 171

No. 3, June 1995

Frontiers review

K.L. Dorrington and C.A.R. Boyd (UK): Active transport in the alveolar epithelium of the adult lung: vestigial or vital? 177

J.W. Ryan and T.G. Waldrop (USA): Hypoxia sensitive neurons in the caudal hypothalamus project to the periaqueductal gray 185

M.-L. Fung, Z. Tomori and W.M. St. John (Slovak Republic): Medullary neuronal activities in gasping induced by pharyngeal stimulation and hypoxia 195

V. Maxime, G. Nonnotte, C. Peyraud, P. Williot and J.P. Truchot (France): Circulatory and respiratory effects of an hypoxic stress in the Siberian sturgeon† 203

ELSEVIER

RESPIRATION PHYSIOLOGY

Contents of Volume 100

No. 1, April 1995

S.M. Tenney (USA): One hundred volumes and going strong 1

L. Zocchi, E. Agostoni and D. Cremaschi (Italy): β-Agonist activation of an amiloride-insensitive transport mechanism in rabbit pleura 7

R.L. Lubman, D.C. Chao and a.E.D. Crandall (USA): Basolateral localization of Na^+-HCO_3^- cotransporter activity in alveolar epithelial cells 15

A. Kawai, Y. Okada, K. Mückenhoff and P. Scheid (Germany): Theophylline and hypoxic ventilatory response in the rat isolated brainstem–spinal cord 25

T.J. Moss, A.E. Jakubowska, G.J. McCrabb, K. Billings and R. Harding (Australia): Ventilatory responses to progressive hypoxia and hypercapnia in developing sheep 33

D.J. McKenzie, E.W. Taylor, P. Bronzi and C.L. Bolis (Italy): Aspects of cardioventilatory control in the adriatic sturgeon (*Acipenser naccarii*) 45

K. Holk and G. Lykkeboe (Denmark): Catecholamine-induced changes in oxygen affinity of carp and trout blood 55

E.S. Nozik , Y.-C.T. Huang and C.A. Piantadosi (USA): L-Arginine enhances injury in the isolated rabbit lung during hyperoxia 63

Y. Zhao, C.S. Packer and R.A. Rhoades (USA): Chronic hypoxia impairs pulmonary venous smooth muscle contraction 75

P.B. Frappell and R.V. Baudinette (Australia): Scaling of respiratory variables and the breathing pattern in adult marsupials 83

K. Fujimoto , K. Kubo , S. Shinozaki , K. Okada , Y. Matsuzawa , T. Kobayashi and K. Sugane (Japan): Neutrophil elastase inhibitor reduces asthmatic responses in allergic sheep 91

No. 2, May 1995

E. Metzen, M. Wolff, J. Fandrey and W. Jelkmann (Germany): Pericellular P_{O_2} and O_2 consumption in monolayer cell cultures 101

C. Campbell, M.B. Weinger and M. Quinn (USA): Alterations in diaphragm EMG activity during opiate-induced respiratory depression 107

M.-L. Fung and W.M. St. John (USA): Expiratory neural activities in gasping induced by pharyngeal stimulation and hypoxia 119

R. Stephenson (Canada): Respiratory and plumage gas volumes in unrestrained diving ducks (*Aythya affinis*) 129

V. Alfaro, V.I. Peinado and L. Palacios (Spain): Factors influencing acid–base status during acute severe hypothermia in unanesthetized rats 139

I. Kuwahira, Y. Moue, Y. Ohta and N.C. Gonzalez (USA): Pulmonary blood flow distribution during acute hypoxia in conscious resting rats 151

N. Weissmann, F. Grimminger, D. Walmrath and W. Seeger (Germany): Hypoxic vasoconstriction in buffer-perfused rabbit lungs 159

A.A. Mayer, J. Metcalfe and M.K. Stock (USA): Relocation during incubation of endothelial nuclei in the chick chorioallantois 171

No. 3, June 1995

Frontiers review

K.L. Dorrington and C.A.R. Boyd (UK): Active transport in the alveolar epithelium of the adult lung: vestigial or vital? 177

J.W. Ryan and T.G. Waldrop (USA): Hypoxia sensitive neurons in the caudal hypothalamus project to the periaqueductal gray 185

M.-L. Fung, Z. Tomori and W.M. St. John (Slovak Republic): Medullary neuronal activities in gasping induced by pharyngeal stimulation and hypoxia 195

V. Maxime, G. Nonnotte, C. Peyraud, P. Williot and J.P. Truchot (France): Circulatory and respiratory effects of an hypoxic stress in the Siberian sturgeon† 203

J.R. Feiner, P.E. Bickler and J.W. Severinghaus (USA): Hypoxic ventilatory response predicts the extent of maximal breath-holds in man 213

L.S. Curran, J. Zhuang, T. Droma, L. Land and G. Moore (USA): Hypoxic ventilatory responses in Tibetan residents of 4400 m compared with 3658 m 223

M.L. Burleson and W.K. Milsom (Canada): Cardio-ventilatory control in rainbow trout: I. Pharmacology of branchial, oxygen-sensitive chemoreceptors 231

M. Odeh, R. Schnall, N. Gavriely and A. Oliven (Israel): Dependency of upper airway patency on head position: The effect of muscle contraction 239

R. Kikuchi, K. Kikuchi, J. Hildebrandt, M. Yanai, K. Sekizawa and H. Sasaki (Japan): Dependence of collateral and small airway resistances of CO_2 and volume in dog lobes 245

B.K. Erickson, J. Seaman, K. Kubo, A. Hiraga, M. Kai, Y. Yamaya and P.D. Wagner (USA): Hypoxic helium breathing does not reduce alveolar-arterial P_{O_2} difference in the horse 253

S. Currie, J.D. Kieffer and B.L. Tufts (Canada): The effects of blood CO_2 reaction rates on CO_2 removal from muscle in exercised trout 261

N.W. Morrell, K.S. Nijran, T. Biggs and W.A. Seed (UK):* Magnitude and time course of acute hypoxic pulmonary vasoconstriction in man 271

R. Prinzinger, MiriamSchmidt and V. Dietz (Germany): Embryogeny of oxygen consumption in 13 altricial and precocial birds 283

R. Prinzinger and V. Dietz (Germany): Qualitative course of embryonic O_2 consumption in altricial and precocial birds 289

Author Index 295

Subject Index 297

Contents of Volume 100 300